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## THE POOR MAN'S SATURDAY NIGHT IN LONDON.

CHAPTER II.

The cheap furniture and omnium-gatherum repositories are on Saturday night bathed in such a

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flood of light as day never pours upon the scene. Broad flaring streams of gas are burning on all sides, and the minutest article in the remotest cavity is distinctly visible in the clear and shadowless glare. Numerous salesmen are active both

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within and without the overstocked marts, and constant appeals are made to the passers-by, as though it were a fact not to be doubted, that every person there was in search of some particular article. It is worth while to pause a moment and watch the tactics of the salesman employed. The bland politeness of the ordinary shopman is not to be found here; so far from conciliating, it would nauseate the generality of the customers. The utmost you can expect is a plain matter-of-fact civility. Where a vast number of low-priced commodities are sold at a very small profit, as is the ease in most of these dusty museums, time cannot be wasted in effecting a sale: so the salesman too often cultivates a species of disreputable eloquence which, among unscrupulous employers, is significantly termed "bounce." The possession of this peculiar qualification enables the salesman to exercise in his transactions with his customers a species of despotism, which must however be of such a character, being seasoned with humour or the affectation of it, as not to give offence. It is curious to notice how cleverly the affair is managed by a practised hand. While loudly talking down all objections, he contrives in the same breath to cajole, to deprecate, to flatter, and to overrule the hesitating customer, and to despatch a treaty which threatened to linger for an hour in less than three minutes; and this indeed he is obliged to do, or his employer would lose money by the transaction.

These attractive museums are besieged by crowds of chaffering purchasers up to the hour of midnight. Groups of labouring men rummage among the tool-boxes; boys and lads are tuning, and scraping, and twanging away at the fiddles; sportsmen are snapping fowling-pieces, or whipping the air with fishing-rods; poor scholars are routing among the books for some threepenny classic; spectacled connoisseurs are peering in vain through the black varnish of a supposititious Vandyke; and thrifty housewives are cheapening kettles and crockery, or buying a brace of flat-irons for a shilling with a view to the next washing-day's exploits. John Jones pulls up instinctively at the sight of the tools, among which he discerns some which would be of use to him in his own trade; but Mary pulls him out of temptation, and drags him away to the furniture-broker's next door, who has a stout table and a set of cane chairs of a very jaunty pattern, upon which she has set her heart.

"What is the article you are looking for to-night, ma'am?" says the broker, who has seen her glancing at the table on previous evenings. "Step in, ma'am; step in, sir; and look at the article."

John steps in, and overhauls the tables and chairs, and demands the price. The price, to his astonishment, is less than he could have anticipated—less indeed than he, who is a working hand at the cabinet-making business, knows they could be made for if a fair price were paid for labour and material. Impressed with this conviction, John hums and haws, and begins fumbling for his purse; but Mary, who like too many people in this age of competition has no notion of giving the full amount of anybody's demand if she can help it, insists upon an abatement in the sum total, and eventually succeeds in reducing by half-a-crown the amount to be paid for the table and chairs. They are paid for, piled upon a truck, and wheeled off in the

rear of the young couple, who pioneer the way to their humble lodgings. John, as he walks slowly along, feels considerably mystified on the subject of the articles he has bought. He knows that, had they been made in his master's workshop, they would have cost more in production than he has paid for them, and he wonders where the profit to the dealer can come from, the goods being new. He is ignorant of the existence of a numerous class of small manufacturers known by the denomination of "garret-masters," who, employing no other hands than those of their own families, purchase refuse timber, which they work up during the week, and then, under the compulsion of necessity, dispose of their manufactures on the Saturday at whatever price the brokers choose to fix upon them.

While John and Mary Jones, pleased with their first exploit in furnishing, are slowly wending their way homewards, we shall saunter through the Saturday-night market, and take a glance at the motley and ever-moving panorama which it presents to view. Owing to the system of late payments which prevails in too many establishments, there is a constant stream of working men's wives, who have but just received their market money, and are hastening to lay in a stock of provisions for the morrow, or it may be for the best part of the ensuing week. Basket on arm, they group round the vegetable stalls, sounding the cabbages and lettuces, pressing the potatoes with vigorous thumb, or poising green peas by the handful to judge of their contents by weight. Here a weather-worn matron is musing pensively over a barrel of brine-sodden pork, from which she finally extracts a hand or a breast, for which she strikes a bargain at sixpence a pound. The butcher with untiring lungs is still firing off his "buy! buy! buy! what d'ye buy?" and his assistants are busy as bees, haggling, chaffering, chopping and weighing pounds and half-pounds of steak or chop, with now and then a small joint. There is a steady and clattering din, continuous as the noise of a rushing stream, rising from all sides, varied occasionally by an uproarious scream or a drunken yell. At the slop-shop under the awning the traffic is at its height: labouring men are trying on fustian jackets and gaudy crimson waistcoats, or half throttling themselves with spotted "belchers;" anxious mothers, leading their ragged urchin sons by the hand, are fitting their matted heads with a fourpenny cap, or their protruding toes with a pair of cheap Sunday shoes; a navigator is cheapening a pair of iron-soled bluchers of seven pounds weight; while a slatternly girl bids ninepence for a wrinkled pair of dancing-shoes, which she stuffs into her pocket, her basket being already overloaded with greens, potatoes, bread, and a pig's face.

The pawnbroker's shop is crammed full with his thrifless and improvident patrons. It is going to be a fine day to-morrow; the weather has set in fair, and there is no fear of rain; on this account, Tom and Ned and Harry, and Nelly and Sally and Madge, and the whole of the improvident pledge-taking fraternity and sisterhood, are flocking to the golden balls to get their best clothes out of pawn, that they may not be shut up at home for want of something to appear abroad in. Coats, waistcoats, and trowsers—and shawls, dresses, and mantles—are tumbling down the spout in ticketed

bundles all the evening long, and being handed over to the expectant owners, who, without a thought of extravagance, are paying from twenty to fifty per cent. per annum for the temporary use or abuse of the paltry sum raised upon them. On the other hand, clothes and household necessaries are brought to the general depository by the starving, the sick, the unfortunate, or the unemployed; who, but for the few pence or shilling or two thus desperately secured, would be dinnerless on the morrow. You may mark a decided expression of recklessness in the countenances of most of these regular patrons of the money-lender, and with equal certainty you may recognise the aspect of vexation and disappointment which characterizes the rest. One unpleasant trait is too general among the pawnmen, and it is evidenced by their immediate resort to the gin-shop, so soon as they emerge from the temple of the golden balls: they unhappily prefer the pawnbroker's pledge to the temperance pledge, and the consequence is that their property, even to their clothes, is reduced to a pocketful of dog's-eared duplicates, while their health and morals are irretrievably ruined.

We must not omit one repulsive feature, which unhappily is never wanting in the poor man's Saturday-night market. You can scarcely stand a minute in any part of it without recognising its disgraceful presence. We allude to the multifarious trade in impostures of all sorts which is carried on during the few hours preceding midnight, wherever the poor and the labouring classes are drawn together to spend their hard earnings. Just on the same principle as the shopkeepers and stall-owners prepare their goods and display their various manufactures to tempt the desires of the monied customer, so do the vile dealers in simulated misery and misfortune prepare their harrowing and heart-rending exhibitions to speculate upon the sympathy of the charitable poor. Every Saturday night in London, the lame, the halt and the blind, the maimed, the mutilated and the crippled, the widowed and the deserted, are manufactured by hundreds to reap the harvest of a certain amount of benevolence which is known to characterise the lower orders of the London working populace, the majority of whom, it should be remembered, are not Londoners born, but country-bred artisans who have come hither in pursuit of employment. These miscreants display a wonderful ingenuity in the concoction of their stratagems and disguises. If the weather be dry and fine, as on the present occasion, they resort to some irreparable calamity as their stock-in-trade, such as total blindness or a semi-paralysis. If, however, it rain, hail, and blow a tempest, and the roads are running with streams of liquid mud, then the domestic-misery sham is most profitable, and, in the place of one paralytic subject jabbering on crutches, you will see a regular pyramid of motherless children, all with clean faces and clean white aprons, standing bare-headed in the rain, and headed by a decent respectable-looking man, who intones a doleful tale about his want of work, his long sojourn in the hospital, and the death of his wife, who has left him with six helpless babes, for whose hapless sake he is compelled to appeal to your compassion, as sickness prevents him from working in their behalf. In some instances such

appeals may be genuine, but the probability is that he has hired the children of their beggarly mothers, at sixpence a head for the night, and there is no doubt but he will make a good speculation of it before the night is over, and in all probability get drunk with the proceeds.

Another very remunerative deception is "the poor gentleman." A young fellow of five-and-twenty, with a pale, sallow, and woe-begone complexion, stands with his back against a gas-lamp on the wall. He is clad in an undeniable gentlemanly garb of refined black cloth, threadbare and shabby by constant wear; a snow-white collar contrasts forcibly with the jaundiced hue of his sickly countenance; and snow-white wristbands of unspotted cleanliness, but fringed and jagged at the edges to denote his poverty and the hardness of his struggle to maintain a genteel appearance, half conceal his skeleton fingers, in which he grasps a single box of lucifer matches. Around his brow there is a fillet of white linen, and he wears a green shade over his eyes. His *tout ensemble*, as he hangs his head in an angle indicative of broken-hearted dejection, presents a spectacle of melancholy reverse of fortune and unmerited degradation, against which the hearts of poor men and their wives are not proof, and you may see them, with a half-expressed sympathetic moan, dropping into his open hand a share of their hard-won gains, which the unprincipled fellow will dissipate before the dawn in the nocturnal orgies of some den of thieves and cadgers, among whom he is renowned as a universal genius. Blind men, with a pair of excellent eyes under a bandage, chant their lying ditties. Men, who could walk you six miles an hour if anything were to be got by it, hobble about on wooden legs, bawling ballads for sale by the yard, and begging your custom for an old tar lamed for life in a cruise against the slave ships off the African coast. Wretched women, with half-clad infants at the breast—borrowed babes, which will have to be returned in an hour or two—unite their squalling voices to the general hubbub. Fictitious cripples, proof against any quantity of liquor, and steeped in falsehood to their lips, are chanting pious hymns to psalm tunes, and turning their bleared eyes to heaven as though they had bidden farewell to hope upon earth. Even children of tender age, trained to these atrocious deceptions, exhibit themselves upon the kerb-stones, crying and moaning with anguish, in the character of desolate orphans without food to eat or a shelter for the night. These villainous deceptions all originate in the fact universally known, that the poor are ever ready to help the distressed; and it is true beyond a doubt, that the unsuspecting benevolence of the lower and labouring ranks has given rise to a thousand devices of unblushing fraud, which makes a prey of their charitable tendencies.

These impostors, however, are not the only claimants for the stray coins of the crowd. It is in the Saturday-night's market that the aspiring street musician makes his first *début* before the public. If he be master of nothing in the world but a cracked fife, and if he can play but one tune upon that—still he brings it to the market, and plays his one tune, and holds out his hat for a reward. It is here that boys and girls make their

first attempt upon the fiddle; and lads blow most alarming blasts upon battered bugles and twenty-second-hand French horns. Antiquated and asthmatic paupers here bray away with impunity, if not with encouragement, upon cracked clarionets, or rasp out groaning cadences upon home-made violoncellos, which, being lengthened by a stout staff nailed to the back, serve for a crutch as well as a musical instrument. Little sham Highlanders with bare legs blow away at the bag-pipes without any idea of a melody; and men in smock-frocks, who have neither ears nor voices, roar the words of an old song to a tune which was never heard before. All this, and much more, which would not be tolerated in any other place or at any other time, meets with encouragement at this hour of the week and in the locality of the market. The reason is not difficult to discover: the people who are there themselves to make provision for the morrow, recognise in every effort to earn a penny, by whatever means, an attempt to do the same, or to procure the means of doing it. They know that this is the last opportunity in the week for the exercise of any calling, and, with the love of fair-play so common to Englishmen, they are unwilling to abridge any man's chance of doing what he can for himself. Nay, more than this, it is observable that the discordant wailings of a wretched and untaught musician will frequently elicit, through compassion for his woeful want of skill, a contribution towards procuring him a meal for the morrow, which, perhaps, had he been more expert in his art, he would not have obtained.

It is now growing late: eleven o'clock has struck; the throng, though it has not decreased in numbers, has been for the last hour gradually changing in character. The middle-class housewives, who make good use of this market, and the more respectable order of working men and women, have nearly all left the spot, and their places are filled by a lower grade of the population. Too many of these, alas! are in a state of semi-intoxication; some have been dragged forth by their wives from the public-houses, and it seems very problematical whether they have sense enough, if they have money enough, without the aid of the women, to make a prudent provision for the morrow. Some of the more respectable shopkeepers begin to make demonstrations of closing for the night: goods that have lain all day on the pavement are silently moved into the interior; gilded mirrors are veiled in canvass shrouds; the flaring gas is turned partially down to a modest light; and one after another the dealers in heavy articles close up their huge fronts and wind up the traffic of the week. But now the slop-seller, the shoe-shop, the butcher, grocer, baker, vegetable dealer, and general provision merchants are busier than ever. There is hardly an hour to elapse before midnight, and thousands of customers have yet to be supplied. The ceremony of bargaining now becomes marvelously abbreviated; there is little time for judgment or selection. Those who have deferred their purchases to the last moment have now but a brief period allowed them to decide, so great is the press of business in all quarters. Among these are many who have but just received their wages, and who are forced by their employers weekly to undergo this loss and inconvenience. The crowd-

ing and clamour around the street-stalls in the Marsh is ceaseless and deafening. The little ragged urchin is still roaring "buy my last bunch of onions," having sold a dozen last bunches within the last two hours. The tinman has got rid of the major part of his pots and kettles, and, being by this time half inebriated, is offering the remainder at a price plainly unremunerative. The earthenware and crockery, which two hours ago was a goodly pile, has nearly all walked off the ground, and the whole stock has dwindled down to a few mugs and jugs, brown glazed pans, and baking dishes, most of which are in the hands of intending purchasers and undergoing certain violent applications of the fist and knuckles calculated to test their soundness and integrity. The poor flower-seller has parted with most of her nosegays, but still sits with her pale and withered face among the ruddy wall-flowers, with a ball of thread in her lap with which she is quietly tying up more halfpenny bunches. The weaver of toasting-forks has disappeared, it is to be hoped with the means of buying something to toast for himself. The fire-screen carver has followed in the same track. The fish for the most part have floated off, and the huge piles of whelks upon the groaning boards have been transformed into crushed and trodden masses of shells under them. The pickled eels and the pickled salmon, which kept them company, exist no longer, unless it be as pickled Jones or pickled Robinson—they having all been swallowed standing, by labouring men and their wives, with whom a stall-supper in the street is a weekly symposium. Of vegetables, however, there is yet a goodly store on hand, which on all sides are changing owners with the utmost rapidity of which such a species of commerce is susceptible.

But there is one species of commerce, of which, repulsive as it is in its aspect, we must take a momentary view, for it excels all others in the rapidity of its consummation. The commerce we allude to is that carried on at the gin-shop, where men and women, boys and girls, and even children, barter their health and their reason for the stimulus of a brief excitement. Let us look in at one of these painted and gilded dens. The interior is glittering aloft with crystal and burnished brass, while it is crammed below with rags, vice, and demoralization. Here, in a corner, a drunkard without a shirt, a mere snoring mass of filth and squalor, is sleeping himself sober after a debauch; wretched women, begrimed with dirt and tawdry with finery, are clamorous for the intoxicating draft that drowns reflection. Fighting Irishmen are groaning out ribald jokes, and, already half inebriated, are anticipating the delights of a fray. Working men's wives, with their provision-laden baskets on their arms, are luxuriating—alas! that it should be so—over their weekly dram, the price of which they have rescued from the spare allowance of market-money by vociferous haggling with the dealers. Old men are anxiously watching the replenishing of their darling black-bottles which, in conjunction with the democratic Sunday newspaper, are to supply the customary sedative recreation of the morrow afternoon and evening. Thieves and pickpockets, to whom this temple of ruin and debauch is common ground, here liquidate their ill-gotten cash, and rub shoulders with

ill-advised but honest poverty, or weary and ill-requited labour, seeking a solace for sorrow in the illusory excitement of alcohol. Every now and then, when the uproar becomes explosive and angry, the glazed crown of the policeman is seen glimmering in the doorway, and a monition from his authoritative voice warns the riotous company that there must be a limit to their indulgence. Though the doors are never closed for an instant, the place is reeking hot and nauseous with the fumes of spirits ; the drawers on the other side of the spirit-soaked counter are perspiring in their shirt-sleeves, and longing for the welcome stroke of midnight, which shall release them from a toil as unhealthy as to a well-constituted mind it would be repulsive and disgusting. It is but a short relief, however, which they will enjoy ; at one o'clock on the morrow the doors must be opened again to the drunkard, and the thirsty wretches will flock in to consummate the holiday of the Sabbath with intoxication—an arrangement which is in accordance with the law of the land, though opposed to every law that can benefit mankind.

We leave the steaming precincts of the gin-shop, the gate of misery, disease, destitution, crime, and hell. It is now a quarter of an hour to twelve o'clock, when there is a sudden and uproarious disgorgement from some of the theatres. An exciting and demoralizing drama has been performing for the last five hours for the especial delectation of the lower and middle-class youth of the neighbourhood, who now in dense swarms are streaming forth and rushing with eager haste to gin-shop and public-house, in the hope of quenching their burning thirst ere the doors are closed against them. In effecting this object they have no great difficulty ; there are places enough in the district to afford a refuge to them all, and once within the doors they will hardly quit the premises till their wants are satisfied. Here we must leave them—not without a wish that the time may come, and that speedily, when they may awake to a better sense of the value of their leisure.

From the above discursive sketches of one of the peculiar phases of London life the reader may derive some idea of the experiences which operate in the formation of character among the masses. If we would acquire a practical knowledge of any class we must follow them into their daily haunts, and study them in the circles in which they habitually revolve. It is there only that they appear in their true colours, and that their virtues and their vices are to be seen in their just and relative proportions. The observer who will take the trouble to investigate human nature, under the influence of the necessities and temptations to which it is subjected through the constraint of narrow means, will probably find that the industrial character comes forth from the alembic of his closest scrutiny, upon the whole, better than he could have expected. The temptations that lie in wait for the labouring man on all sides—the ten thousand traps so artfully set for his earnings and his savings—the villainous pretences and impostures which lay claim to his benevolence and generosity—the delicious poisons that are prepared for the gratification of his palate, and the enticing literary garbage by which unprincipled scribblers seek to pander to his worst passions, and to pervert and corrupt his

intellect—all these are so many and so powerful hindrances to the safety and prosperity of his career, that the wonder is, not that so many succumb to the oppositions which beset them, but rather that so many escape. The truth is, that there is in the working mind a substratum of practical good sense coupled with an amount of good principle, not always easily to be lured into folly and error ; and herein lies the hope of the philanthropist who labours for the emancipation of his humbler brethren from the thraldom of their lot.

The scene we have above so imperfectly described, melancholy as it must be to a Christian mind, is but one of very many that are to be met with in various quarters of the metropolis. How different the Saturday night of the laborious Londoner is from that of the Scottish cotter, whose condition we glanced at in the opening of this article, we need not remark. We may observe, however, that it is too often by necessity, and not by choice, that he and his wife are driven to the midnight market. The exactions of business are at the root of the evil, and from these he is in no condition to escape. What we should like to see, and what all the sons of labour have a right to expect, would be the release from toil of the entire band of the industrial host at an early hour in the Saturday afternoon. The Saturday-night's market would then wonderfully improve in character, and the Sunday-morning market, an abomination of infinitely greater magnitude, which legislation has been trying for two hundred years in vain to suppress, would die out of its own accord. We shall have a higher standard of morality among the labouring masses when employers improve their own, and give their working hands an opportunity at least of enjoying and cultivating the endearments of domestic life. The "virtuous populace" the poet speaks of must be reared, if reared at all, where the social and domestic virtues are practised, and where the parents have the leisure to *enfzce* by example and by "admonition due" the *cozervance* of them. Of this leisure the present headlong pursuit of business deprives them—and we look to a reform, in this particular, as one of the first steps towards the improvement of the masses in all our large towns, and in the metropolis especially. Let the Christian church see to this. With Saturday nights like that which we have described it is vain to expect sanctified Sabbaths.

#### AN INCIDENT IN A GOOD MAN'S LIFE.

It was towards the close of a balmy summer's evening, in the latter part of the seventeenth century, that an old-fashioned vehicle of the lumbering style that characterized coaches in the reign of Charles II, was slowly wending its way up a somewhat steep road in Scotland. The carriage contained two travellers—one a mere youth, the other a gentleman past the middle of life, but with a singularly mild and sweet expression of features. His dress was that of an ecclesiastic of the English church ; for it was the period when government had been endeavouring to extend the episcopal form of worship to Scotland ; and but a few miles farther on lay the town of Dunblane, which had been erected into a diocese. Some conversa-

tion was engrossing the two travellers, as the wearied steeds slowly walked up the toilsome ascent, when at a corner of the road a sudden cry of distress broke upon their ear.

"Hush! Henry," said the elder traveller; "what noise was that? Pull our horses in for a moment, while I endeavour to see whence it proceeds." The horses were accordingly pulled in, and the gentleman, looking around, saw, a little way down a cross road, which branched off from the point at which they had now arrived, a man who was pointing to what appeared to be a human body lying before him on the ground. "Stop! stop! for pity's sake, gentlemen," he shouted, waving his hat, and making signs of great distress.

"I will go and see what is the matter," said the ecclesiastic; "do you remain here till I return." Thus speaking, he hastily descended, and proceeded towards the man, who now began to pour forth a torrent of thanks for the attention which had been paid to his cries for assistance. On the ground beside him was lying a corpse-like looking being, his countenance smeared with dirt, and his whole frame struggling as if in the agony of death.

"Thank you, sir; oh thank you, sir, for taking pity upon a poor fellow in trouble," said the man whose cries had attracted attention—a tall, strongly-built personage, whose appearance seemed to indicate that he had travelled some distance, for his shoes were much worn and bespattered with dirt, and he had a thick staff in his hand. "What is the matter?" inquired the gentleman, in a tone of gentle sympathy, as he drew near.

"Oh, sir, it's dreadful to think of," replied the man; "my companion here has been taken ill in a fit, and is dying." As he uttered these words, the man on the ground gave a prolonged gasp, and struggled as if exhausted.

"Let us remove him directly to my carriage," said the gentleman, stepping towards the apparently agonized sufferer: as he uttered these words, he found himself seized by the man who had cried to him for aid, while in an instant the apparently dying sufferer was upon his feet, brandishing a pistol which he had kept concealed under him. Bursting into a loud laugh, the first assailant exclaimed: "Come, old sober-sides, out with your purse, and be quick over it, for we are in a hurry."

"Ay, make haste," added the other, "for it's time I was buried, and we've no money for a coffin. Come," said he, in a violent tone, "no nonsense;" and as he uttered these words, he shook the pistol menacingly before the gentleman's face. A gleam of painful surprise passed over his features at this unexpected issue of the adventure; but seeing that resistance was useless, he suffered them to rifle his pockets, quietly observing: "Ah! my friends, stolen money carries a curse with it, and your ill-timed mirth will end in sorrow. Be advised, and leave off your unhappy courses before it is too late." There was something about the countenance of one of the men which seemed not entirely unaffected by this appeal, aided as it was by the singularly mild and gentle tones in which it was delivered; but it was otherwise with his companion.

"Come, come, none of your preaching," said the ruffian who had simulated the dying man; "we want money, not sermons. You had better be off, quickly too, and say nothing about what has hap-

pened, or you won't get away with a whole skin the next time we meet you."

The gentleman departed for his carriage.

"I know what has happened," said his young companion, "but, unarmed as we are, I thought that it might be worse for both of us if I attempted to rescue you."

"You acted wisely," was the reply; "for the ruffians would most likely have shot us if you had come to my help; but what a sad action, to counterfeit dying agonies as a cloak for their nefarious scheme. My heart bleeds to see the victims of sin pursuing their course heedless of the ruin which often in a moment overtakes them; but these are more hardened wretches than most, I think."

By this time they had nearly gained the top of the hill, and the spire of Dunblane was seen glittering in the fast closing sunset. Just at this moment, however, the same cry which had before saluted them was again heard; and presently the man who had previously uttered it came up with the carriage: "Stop, sir!" he exclaimed. "Oh, do believe me," he added, in terrified tones—"I am in earnest this time; my mate really is dead since you left us. Do stop and help me; oh! what shall I do?"

"Ah! you want to rob me, now," said the youth, who had escaped before; "be advised, and rest content with what you have got; we are drawing near to Dunblane, and shall meet with help presently."

"Oh no, sir, I am in earnest—indeed I am. I would not risk being caught in this way if I wer'nt," replied the man, in such natural tones, and with terror so strongly imprinted on his countenance, that both the travellers thought he must be a very good actor if this were not genuine fear. After a moment's struggle with suspicion, the carriage was once more stopped.

"What is it that you want?" demanded the gentleman whom he had robbed.

"Oh, sir, do come back; the man whom you saw on the ground is *really* dead this time; he died almost immediately after you left: do come back, will you, gentlemen?" And he looked anxiously at the travellers—first at one and then at the other—as if to scan their countenances, for the purpose of discovering what impression his words were producing.

"You may think it infatuated of me, Henry, to be so credulous," said the elder traveller, "but I feel convinced that he is in earnest now; and I would fain see this strange adventure to its end. If you have any doubts I will again go alone."

"No, no; I will accompany you this time, at all hazards," said the youth; and the horses' heads were accordingly turned round in the direction of the spot which they had just left.

On reaching their destination, they at once perceived that now at least there was no deceit. The body of the robber who had been shamming death before was lying in the road, its features visibly stamped by the king of terrors. On kneeling down to see if any aid could be rendered, the reality of this sudden death became apparent. Whether some disease under which he had been labouring had suddenly come to a crisis, or whether his efforts to simulate the agonies of a dying man had been overacted, and had led him to strain

some vital organ, could not be known ; certain it was, however, that the unhappy man was dead. In the moment almost of committing his crime he had been summoned into an eternal world.

"This is a fearful lesson, my friend," said the first stranger, turning to the surviving robber, who, forgetful of the fact that he might now have been mastered by the two travellers, seemed confused and overwhelmed by the blow that had befallen him. "You here witness the bitter fruits of the life which you are leading."

The man to whom these words were addressed bent his eyes to the ground.

"Take back your money, sir," he said, extending the purse as he uttered the words ; "and believe me, I've done with thieving for ever."

"Trust not in your own resolutions, my friend," replied the gentleman, "but ask Him who has thus terribly shown you His power, to enable you for the future to lead an honest life. And here is something for your present necessities," he added, putting a sum of money into the man's hands as he spoke. "I hope you will soon find a better calling."

Were ordinary men our only standard of judgment, conduct like the above would seem too romantic to be true. But he to whom it happened was no ordinary man. The incident is traditionally recorded as having occurred to the amiable Leighton, archbishop of Glasgow. All that we have done has been to fill up the outlines of the story. A few more anecdotes of this excellent man will probably interest the reader.

Robert Leighton occupies a somewhat prominent place in Scottish history. He was the son of that divine of the same name who, in the reign of Charles I, was whipped, pilloried, had his ears cropped, his nose slit, and his cheeks branded, for a work entitled "Zion's Plea against Prelacy," of which he was the author. The son was principal of the university of Edinburgh, and was subsequently appointed to the bishopric of Dunblane, when Charles II attempted to establish episcopacy in Scotland. His acknowledged virtues, his learning, his fine temper, and his holy life, pointed him out as one especially fitted for presenting prelacy in its most favourable aspect. But others who were engaged in that unsuccessful attempt were men of a widely different character, and their severities and intolerance induced Leighton to give in his resignation. This was not accepted, and he was subsequently removed to the archiepiscopal see of Glasgow. This he resigned, and retired to Broadhurst in Sussex, where he continued till his death, which took place in 1684.

Some characteristic anecdotes are related of Leighton. One is amusing : he died a bachelor ; but a curious attempt was made to induce him to marry. A lady accosted him once when pacing a shady walk, and, with many apologies and some embarrassment of manner, informed him that in a dream, which she thoroughly believed had been sent from heaven, he had been pointed out to her as her future husband. Of course he could act as he thought proper, but her conscience would have condemned her had she not acquainted him with the heavenly admonition. The bishop listened most courteously to this announcement, and then archly, but with his accustomed sweetness of manner, assured her that he fully believed her to

be actuated by conscientious motives. But as marriage was a very serious affair, and as the dream was possibly of a less heavenly character than she imagined, he thought it would be better to wait a little and see whether a similar communication were made to him, in which case it must indeed be regarded as a divine injunction to be obeyed.

As an instance of his evenness of temper, it is said that a thoughtless servant, whose pranks are traditional in Dunblane and its neighbourhood, having a fancy one morning for the sport of angling, locked the door of his master's house and went off with the key. Leighton was unable to get out, and the servant was too much taken up with his fishing to think of returning before evening, when the only reproof he received for his gross misbehaviour was : "John, when you next go a-fishing, remember to leave the key in the door."

As an instance of his catholicity of spirit, it is related that a friend calling upon him one day, and finding that he was not at home, learnt that he was gone to visit a sick presbyterian minister on a horse which he had borrowed of a Roman catholic priest. It was a saying of his which deserves to be imprinted on every heart : "I prefer an erroneous honest man before the most orthodox knave in the world."

Leighton, as is well known, had often remarked, that if he had the choice of a place to die in, he should select an inn. He compared the world to such a place, and the Christian to a wayfarer tarrying at it, and he thought it undesirable to be surrounded by sorrowing friends and officious servants at the solemn hour of death. This curious wish was fulfilled, for he died at the Bell Inn, Warwick-lane, London.

Whilst he resided in his Scottish diocese, he was so lenient with his tenants that considerable sums were due to him when he resigned. These arrears seem to have formed the chief part of his subsequent income. Dropping in from time to time, the last remittance that he expected came about six weeks before his death ; "so that," as the friend in whose arms he expired happily remarks, "his provision and journey failed both at once."

One more particular and we have done, and it is the most remarkable of all. Bishop Burnet, the intimate friend just mentioned, gives the following testimony to the *finish* of his character : "I can say with great truth, that in a free and frequent conversation with him for above two and twenty years, I never knew him say an idle word that had not a direct tendency to edification, and I never once saw him in any other temper but that which I wished to be in, in the last moments of my life."

#### WHAT A TYPHUS FEVER DID IN OUR VILLAGE.

OUR village stands on a rounded swell of land, with slopes on every side favourable for carrying away all refuse ; it possesses a broad ample street, but has several courts, lanes, and alleys dropping off at right angles to it, all of ample dimensions, (for ground was of little money-value when the cottages were built) ; it, moreover, is not at all surrounded by trees, which the neighbouring German ocean keeps down to a size not obstructive of ven-

tilation. Thus circumstanced, and built on dry sandstone rock, one would have thought our village stood little in need of "sanitary regulations;" that cholera, typhus, and small-pox would pass lightly over us, and that our village would be at the very top of Mr. Farr's laborious and invaluable tables of average mortality. Such ought to have been, but by no means is, the case.

The front street—the only real *street* of the village—is ample and airy; but then every nook, cranny, and corner, which one would have liked to have seen occupied by shrubs and flowers, or at least by bare, green, goose-eaten grass, is encumbered by heaps of ashes, which on windy days convert the whole thoroughfare into a Sahara of coal dust; and by pig-middens, with their accompanying brown-stout pools, which in still sunshiny days disseminate most unwholesome visions and smells. Down in the courts, lanes, and alleys which run at right angles to the main street, live the pigs and the people who produce all this pollution, penned up together (in a country village where building land is easily and cheaply to be had!) as densely and as filthily as in the back streets of Coventry, probably the nastiest, and yet most romantic town of the midland counties, if not of all England. Our village is the Coventry of its district; while it might be the neatest, as it is one of the most industrious and filthy villages in England. Lying high and dry, however, every one thought that when typhus fever was ravaging the seaport town, two or three miles away, and threading its deadly way up the populated banks of the tidal river, that our village would escape. And during the autumn, when the visit of typhus was the most fatal in the town and up the slimy creeks and villages lying by the banks of the stream, our village did entirely escape; so that people came to us from the town, and were content with the humblest garrets as bed-rooms, and the run of the countryman's kitchen during the day, while the terrible epidemic was ravaging the more densely populated neighbourhood. During the autumn—a very breezy autumn—this went on, and yet not a single case of typhus occurred in our village, greatly to the satisfaction and comfort of the overseers, who, as old respectable inhabitants, had resisted the efforts of the new young doctor to get the village cleansed; greatly also to the satisfaction of the quack, who having been drug-boy in a surgeon's laboratory, had established himself many years before as the general practitioner of the village and neighbourhood; and greatly to the chagrin of the young and too hasty Esculapius, who had prophesied a terrible mortality in the village from the prevailing epidemic.

The open breezy autumn was nearly gone, and still our village had escaped the terrible fever which had swept away so many in the towns and on the river sides; still the unwholesome ashes scoured through the wide street, and the pig heaps grew larger, while the country people, busy with the harvest, refused resolutely to listen to the new young doctor's denunciations. At length, the heavily-laden corn carts, which for a month past had been incessantly passing up or down the village to the various farm-yards from the harvest fields, might be seen idly tilted up by the side of the refuse heaps; the stack-yards were filled with well-

bound, neatly-thatched stacks; the women, who morning and evening had been seen in their old-fashioned worklike "bed gowns," or short skirted jackets with cotton sleeves, wending their way to and from the corn riggs, might now be observed busting about their cottages, or sitting beside the dung heaps mending the household clothes which during the busy harvest had fallen into arrears; and a few of the Irish, who had assisted in cutting down the corn, might be seen lingering about the door of the ale-house with pipes in their mouths, wasting in drugged beer the money they had worked so hard for. The lively breezes which had swept the village and kept the reaper cool during the harvest went down about the middle of October, and a week of very still weather succeeded. The nights were frosty and chill, but the sun during the day had still great power, and shot down from a cloudless sky a flood of flame-coloured light, the yellow rays glaring over all the silent stubble fields and beautiful melancholy autumnal woods and hedges in a manner strangely oppressive to the mind. The ash-heaps were now at rest; and from them, as well as from the brown-stout pools and reeking dunghills, the exhalations lay quivering in the winking sunlight, a visible atmosphere of death.

In the middle of the day, the side of the village street on which the full power of the scorching sunlight fell was peopled with dogs, pigs, geese, fowls, cats, and children, all sprawling, gasping, cackling, grunting, or sleeping, singly or in groups, among the foul heaps of refuse. The denunciations of the new young doctor became now more vehement, and the sneers of the quack, the overseers, and the gentleman brewer, who lived in the biggest house in the village, nay drove his carriage, were worse and worse to bear. The doctor protested that this calm still weather would keep the poisonous exhalations from all the refuse hovering over the village like an explosive atmosphere, which would only require the touch of the pestilence to develop its destructive power. The quack said the doctor was a fool for talking against his own interest; the overseers declared that "the muck-heaps and the soakins o' middens had never in the memory o' man been carted away for fear o' typhus fever, and they wouldn't be the first overseers to bring the burden of a fresh rate on the parish;" and the purple-faced gentleman brewer, whose faith was in strong beer against all diseases, stopped his carriage one evening as he met the poor young doctor on his shambling hack (riding six miles from home to a miserable peasant's wife in labour, from whom he would receive no fee, except a weak cup of tea and piece of barley bread some time during the night), and tapping him familiarly on the shoulder with his cane, advised him to drop his sanitary nonsense, if he wanted to get on in life, and to call at the brewery and try his treble X. The hasty young doctor spurred his sorry nag to escape the familiar insolent tap of the cane, and saying that he hoped Mr. Barleybee might not have proof in his own family of the inability of the treble X to cure typhus fever, rode on over the moor.

One thing, however, the talk of the doctor had effected; the overseers had taken advantage of it to get most of the Irish to leave the village. But one drunken man, with a decent wife and two strong fine

girls, who had been noted during the harvest for their persevering industry and frugality, remained, living in a lodging-house to which tramps resorted, and to it this unhappy family, so soon as the father had taken to drink, also resorted, from the decent clean little lodging in a labourer's cottage which they had occupied during the harvest.

"Sure," said the poor woman, weeping, and sitting with her bruised and bloated husband's head in her lap—the young women listening fearfully to the stertorous breathing of their deeply inebriated father—"Sure, it's his only fault, an' his only enemy, an' it's found him out once again, just when we had made up the rent an' enough to buy the cow, and was going back in triumph to ould Ireland. He worked for it like a baste," said she bitterly, as she cast her eyes upon her two daughters, the comeliness and natural delicacy of their young womanhood broken down and defaced by the sorrow and shame of their present circumstances. "Ah yes, sure, it's his only fault: may God mend him of it," continued the poor creature, turning from the hopeless spectacle of the drooping girls, on whom want also was now beginning to tell. The last shilling had been spent on the poor wretch's present stupor; hunger was at the heart of the wife and the girls, and utter hopelessness before them; yet the daughters sat there without reproaches on their lips; and as for the mother, there was nothing but affection in her mournful hopeless tone, as she repeated: "May God mend him of it, and mend us all."

The wretched man had been lost from the village for two or three days, having been away "on the spree" during that time, drinking continually at the low lodging-houses and public-houses of the neighbouring seaport town. In searching for him, both the mother and the girls had to spend hours among the worst haunts of the fever, and had returned weary, dispirited, and exhausted from want of food to the village.

The next morning, when the young doctor rode into the village from his night's expedition over the moor, he was called to the tramp's lodging-house, and found the Irishman delirious, the spots, or as the doctor called them the *petechiae*, over his body showing that he had brought the fever in its very worst form to the village. So soon as the surgeon had given the necessary directions, he rode, weary as he was, to one of the overseers, a farmer near the village, and urged that now at least an empty barn, of which he had before spoken, should be fitted up for this poor family, and that thus an attempt might yet be made to prevent the spread of the pestilence in the village. The overseer did not think the rates could be applied for this purpose, but would see his brother overseer in a day or two about it. "A day or two!" replied the doctor, hastily; "do you think fever will stop for such a clodpole pace? My opinion is, that as an overseer of the poor and the highways, and as a Christian man, you are bound at once, this moment, to try to arrest this plague, by thoroughly cleansing the village, and by securing so far as you can the separation of the sick from the healthy. The deaths of those who may perish from your stupidity, or your laziness, rest on your head, not on mine!" And with this indignant and impolitic

speech—for no man gains any advantage by losing his temper—the poor, weary, half heartbroken young fellow flung himself on his jaded hack, and hurried away to prepare some fever medicine for the unhappy Irishman.

In the course of the day the surgeon saw the overseer and the gentleman brewer, but both agreed that the township would never stand a rate for such a purpose as this of a temporary fever-house or hospital—a thing never before heard of in the village; that the stirring of the ash-heaps and pig-middens would, if at any time of any use, now only make bad worse; that whitewashing houses was, in their private opinion, mere humbug; and, besides, who could get the neighbours to do it? and that, in short, they wouldn't bring a new burden on the parish for all the nonsensical whims of their newfangled doctor. To which the purple-faced gentleman brewer, who was really a kind-hearted man in his way, added that if strong beer was of any use to any of the fever patients, the doctor might send to the brewery for his double X to an unlimited extent. "And come yourself, doctor," continued he, "and try if it isn't better than any physic in your shop. I believe you're a well-meaning fellow, and very skilful with knives, and chemicals, and such like; only fanciful about fresh air and temperance, and that sort of nonsense." And so the surgeon was obliged to give up the struggle, and resign himself to the course of events.

As he went moodily up the street, he met the easy, lazy, kind-hearted, perpetual curate. The young doctor looked up from switching his boot impatiently, and, as he recognised the curate, lifted his hat respectfully. Then he stated his case, urging the curate to use his influence to avert the probable, or at least possible, danger to the lives of his flock from the fever. The reverend gentleman asked first what was the opinion of the brewer and the overseers and the solicitor, and finding they were all averse to the doctor's sanitary precautions, or rather to the rate which they involved, he muttered something about not trusting to an arm of flesh. "It would be very wrong to do so," said our young friend, quite overpowered by the apathy of all the authorities. "But you yourself, sir, should the fever strike you, will send for me or some other medical man; trusting then to the arm of flesh when it is probably too late. I don't want you to trust in human skill alone. I know that God must bless the means that are used; but, at the same time, he expects us to avail ourselves of the forethought with which he has endowed us as reasonable creatures. For a man to talk of trusting to the protecting care and benevolence of God, whose distinctly uttered laws of health he is knowingly and wilfully violating, is mere ignorance or something worse. And you yourself, sir—I wish to speak it with all respect—you, or any clergyman possessing influence like you, when you see your parishioners standing in a stifling air, which they have never made one effort to keep pure, allowing all manner of filth to accumulate in their village, and suffering fever, as it is now doing, to make fearful head—you, sir, are incurring great responsibility if you neglect to warn them of their danger. Sir, I pray you to reflect on this, and wish you happily through any danger from

this fever which, in the performance of your sacred duties, is before you." And so our strange friend, again lifting his hat to the bewildered curate, went on, switching his boot and chafing very much within himself.

It turned out as the doctor had feared; a terrible attack of fever fell upon the village, seeking out especially all the closest and dirtiest parts of it. The poor Irishman never came out of his delirium; the fever of his last intoxication slid into that of the typhus, and out of that he plunged, in a few days, into a pauper's grave. The affectionate wife had scarcely pressed down the eyelids of the corpse with the last two farthings she had in her pocket, when she fell on the floor stricken by the same plague, and her two daughters soon also were stretched on the only beds that remained unoccupied in the tramp's lodging-house. Now the overseers found how economical it would have been for them to have followed the young doctor's advice about the barn; for what with rent of rooms, attendance, wine, and food badly and expensively prepared, this one family cost them more than it would have done to have fitted up the barn and kept it as a fever-house for some months. The result, however, it may be mentioned in passing, has been, that the barn has been devoted to the purposes of a health-house for the village, and henceforth any contagious or infectious disease occurring among strangers, and those who cannot provide medical and other necessities, will be taken to the beds there established. The poor Irish widow, after some time lingering, at length recovered, and she is to be the matron of this humble establishment. The two fine young women died. The authorities—even the purple-faced gentleman brewer and the perpetually easy curate—became very soon alarmed at the rapid spread of the fever in the village, and would fain have now carried off all the dung-heaps and drained the brown-stout pools. But heavy rains set in, and then a dreary snowy winter, and the fever spread with such fearful rapidity that nothing was done just then. There was soon scarcely a house in the village in which there was not a death; and Bobby Feason the idiot lad remarked, on Christmas day, when three funerals were going down the village street, that it was "just as thrang as at harvest time."

"Ay, Bobby," said the doctor—who was following one of the troops of mourners and overheard his words—"even in this world, as we sow so must we reap; we sowed dirt and we are reaping death."

"Bad farming, doctor!" said Bobby, with a half-idiotic grin.

It was a very surprising thing, to the medical men of the neighbouring towns, that the epidemic should rage so much in so high, dry, and airy a village as ours; and that this severe attack should occur during the cold weather was thought still more remarkable. But the cause, as the young doctor said, was clear enough. The severe winter caused the cottagers to close up all their rooms, the front door especially; the "neighbourly" habits of the people led them to be continually going from house to house to inquire after the sufferers, and the consequence was, that each visitor came into rooms which the exhalations from the sick thoroughly pervaded, and that, even when they did not themselves take the malady, they

conveyed in their clothes the leaven of the pestilence. The brewer's only son took the disease thus (in spite of all the treble X his father made him drink), from boys whose parents or families had the fever. After many weeks of great danger he was at length spared to his much-loving parent, who, under his affliction, had actually, at the advice of the young doctor, given up strong ale and taken to "weak brandy and water." The worthy, easy, old curate ceased to be "perpetual;" for, after apparently recovering from the fever, and expressing his deep regret that he had been too fearful of the prejudices of the ratepayers to urge the necessary sanitary measures, he died. Worthy old man! to his persuasions chiefly it is we owe the little health-house made out of the barn, which has already been so useful in our village. I think there ought to be a health-house in every parish in the empire.

\* \* The intelligent writer of this paper is deeply anxious that the provisions of the "Public Health Act" should be carried out by all towns and villages. He is convinced, too, that it would be a work of true philanthropy for some public-spirited individuals to form a society, which should communicate useful knowledge about the laws of health, and aid the above important Act of Parliament by diffusing information respecting it. We cordially commend the suggestion to the attention of our readers.—*Ed.*

#### BIRMINGHAM AND HER MANUFACTURES.

##### IX.—PAPIER MACHE.—GOLD AND JEWELLERY WORKS.

Our next visit is to Constitution-hill, to the establishment of Messrs. Jennens and Bettridge, whose productions in papier mache have done so much towards familiarizing the public with the beauties of art in union with manufactures. The first application of the material of paper to the construction of solid articles is due, we believe, to a Frenchman; but even the French themselves allow that they are far surpassed by the English in the quality of the goods now produced. There are three several modes of preparing the material. The first, which is profitably applicable only to common purposes, consists in reducing paper to a state of pulp, and then compressing it into moulds; the result however is not very satisfactory, the articles produced being far from durable, owing to their brittleness and liability to fracture. The second process reduces the paper to a perfect paste, which, mixed with other substances, is modelled into various forms, such as picture-frames, pedestals, brackets, cornices, heads of columns, and other architectural devices, for which purposes it has been largely used for decorating public buildings and private residences: when used, however, for articles requiring plain polished surfaces, it shows a tendency to settle in small hollows, a defect which no other quality can compensate. The third process, which is that followed by the Messrs. Jennens and Bettridge, we shall endeavour to describe as we saw it in operation at their establishment. The first step is to paste a certain number of sheets of a thick, soft, and grey kind of machine-made paper, one upon another, over a mould hollowed into the exact form of the article to be produced. When by successive layers of paper the article is thus formed, it is carried to an

oven heated by flues, where it remains until it is so thoroughly dried and hardened as to resemble wood of a very fine grain, like which it may be readily cut, carved, and dressed with edge-tools as easily as if it were the rose-wood or mahogany of the cabinet-maker. The advantage of this elaborate mode of preparing the body of the article over that of merely pressing moist pulp into a mould is too apparent to need pointing out—the surface produced being capable of working to a perfect level and susceptible of the finest and most permanent polish. The article when released from the oven is planed, cut, and filed to a rough shape, after which it is immersed in a hardening spirituous mixture and again exposed for twelve hours to a great heat, which renders it so perfectly solid and crisp under the tool of the workman that it might, if necessary, be carved or engraved in relief like the finest box-wood. The material in this state is worked up to its perfect form, after which it is japanned, brought to a surface unimpeachably smooth, varnished, and, if required, finally gilded or painted.

The above process may be considered as that which articles that are but slightly ornamented, and which constitute perhaps the staple of the manufacture, have to undergo. But the stranger who visits this establishment cannot fail to be struck with the gorgeous and truly regal display of richly elaborated structures, embracing every purpose of utility and luxury, which in crowded and dazzling profusion adorn the show-rooms. Here the light and plastic paper is seen to assume every variety of form suggested by the imagination of the artist, while at the same time it is shown to be susceptible of every species of ornamentation that can be applied to manufacture. Easy reclining-chairs, drawing-room chairs in every variety of graceful pattern, sofa-tables, screens, work-tables, work-boxes, portfolios, ink-stands, infants' cots, elegant vases—these are but a few of the various forms into which paper is impressed, and in all of which its pre-eminence over any other material is evident, from the fact of its lightness, its durability, and its utter incapability of fracture by fair usage. A vast number of these articles are profusely ornamented by designs inlaid in pearl and imitative gems, interwoven beneath the lucid surface with threads and veins of gold. The processes by which these rich and glittering ornaments are imbedded in the hard and impenetrable surfaces were invented by the Messrs. J. and B., and are secured to them by patent. The most valuable characteristic, however, of this manufacture appears to us to be the opportunity it affords for combining the labours of the artist with those of the mechanic. The surface of the prepared paper is admirably adapted for painting in oils, far more so indeed than either the canvass or the panel of the artist, and consequently we find the flat surfaces of many of the different objects adorned with copies from the works of celebrated painters, or with small original pictures by the artists engaged. In a room in this establishment we found a number of young men thus occupied at the easel, engaged in copying pictures upon the surfaces of different articles of a useful description. It is plain that nothing is wanted but an improved taste on the part of the public, which would create

a demand for the services of first-rate artists, to bring this branch of the manufacture to the highest perfection. In the same room we observed the process of gilding upon glass and polished surfaces; it is managed as follows: the surface upon which a design has to be drawn in gold is first entirely covered over with gold leaf; upon this the artist paints his design, perhaps a leafy wreath, or an arabesque or scroll ornament, with a camel-hair pencil dipped in a brownish varnish; the varnish dries in a few minutes, and then that portion of the gold not covered by the varnish is wiped off with a piece of soft cotton wadding. Nothing is now visible but the design painted in brown-tinted varnish; the varnish however is rapidly wiped off by a soft wad dipped in spirits of turpentine, and the design remains in all its brilliancy. The manufacture of papier maché goods has made rapid strides during the last twenty years. When it first arose in Birmingham, it was confined to the production of tea-trays, waiters, and similar articles, demanding little expense or ingenuity in their construction. The excellence and durability, however, of these trifling objects proved the value of the material, and doubtless afforded a stimulus to the vast improvements which have since taken place. Among the most important of these may be reckoned the ornamental panels for purposes of decoration, which have latterly risen so much in demand, and with which the cabins of many of the largest steamers have been fitted up.

We are now going to spend a little time, with the permission of the proprietors, in taking a rapid glance at the gold and jewellery works of the Messrs. Goode and Bolland, in St. Paul's-square. The term "jewellery" is generally understood to comprise all the various ornaments fabricated from gems, precious stones, and precious metals, either to be worn upon the person or enshrined in caskets; thus brooches, chains, cameos, pins, rings, seals, bracelets, necklaces, tiaras, and even pen-holders and pencil cases—all, in one sense, are jewellery; but the fact is, that the manufacture of these several articles, and a great many more might be added, are separate and distinct trades, though it is not unusual to see several of them combined in one establishment. Thus, in that of Messrs. G. and B., although the staple of the manufacture would appear to consist in ornamental neck-chains, watch-guards, etc., in all their beautiful variety, yet numbers of brilliant articles, combined of gold and gems, are continually in course of formation. Birmingham has of late years retrieved the character she once lost in reference to this branch of her trade, and the greater portion of the jewellery disposed of in this country comes from her workshops. It has been calculated that the consumption of fine gold in Birmingham, for chains alone, amounts to no less than a thousand ounces weekly; and that more of the precious metals are consumed in her manufactures than in any other town in the kingdom, not excepting the metropolis itself.

On being conducted to the workshops in which the various departments of this manufacture are carried on, we cannot help being struck with the quantity of gold which everywhere meets the eye. All hands are at work upon it in quantities greater

or less. It lies in flat sheets upon benches; it is piled in little heaps before the workpeople, of whom there are hundreds busily employed; it is flying in dust from the edges of grinding-wheels; and if we are trampling it under foot as we walk, that is no proof that it will be lost, seeing that the floors are paved with sheet iron in order that all stray fragments may be gathered again by sweeping. The first operation which we are called to witness is the drawing of the gold wire, which is reduced to the required gauge by a process with which we have made the reader already acquainted. By the next step in the manufacture—we will suppose of a lady's neck-chain—the wire is cut into lengths to form the several links; it is then bent into the form it will occupy in the finished chain, or perhaps it is impressed with some minute device by the action of the die, or it is rendered flat or circular, convex or concave, or modelled into some eccentric or fanciful form. All these several transformations it is made to undergo by means of the universal hand-press, fitted with the appropriate punches and minute armatures, and under the control of young females. The links thus formed at the presses—we do not undertake to say that they are all made from sections of wire—are now made over to a different set of operatives, who have a more difficult business to manage: it is their duty to join them together into chains. Let us watch a young girl occupied at this minute and rather tardy proceeding. She, like a score of others, is seated in front of a jet of gas, by the side of which is a little pile of the links which she has to connect together to form the chain; she is supplied with a small blow-pipe, a vessel containing solder, and a kind of long bodkin used to apply the solder to the metal. The half-formed chain upon which she is at work is in her left hand: taking up one of the links, she fits it into its proper position on the chain by forcing the last link which was added at that end between its two closed extremities; then to these extremities she applies, by means of the tool which we have called a bodkin, a very minute and scarcely perceptible portion of the solder; she now lays the end of the chain upon a little charcoal bed beneath the jet of gas, and by means of the blow-pipe applied to her mouth directs a small stream of blue flame upon the soldered link until the gold is thoroughly red-hot, when the solder melts and unites the two ends. The red-hot metal of course requires some minute or so to cool, but this occasions no loss of time, as the girl, the instant the solder is melted, withdraws the chain from the fire, and commences operations at the other end, and as two or three minutes are consumed in fastening on each link, she is in no danger of burning her fingers. We are not accustomed to imagine that the making of these chains begins in the middle; such however appears to be the fact.

Many of these chains are rich with figured patterns and extremely beautiful; some have facets ground on the links, and here is a young man seated in front of a revolving wheel grinding or cutting the facets, not on the edge but on the side of the wheel, and collecting the dust ground off in a tray beneath. Others are polishing and burnishing the finished work by the aid of revolving disks or by hand labour; and others again are cut-

ting and polishing gems and precious stones by means of wheels revolving horizontally. The motive power for these various purposes, including as well the different branches of manufacture as the construction of the machinery used, which is all made on the premises, is supplied by a steam engine of fifty-horse power. When any piece of work is finished it passes under strict examination by a competent judge, and any defects or marks of negligence have to be made good before it is consigned to the market. The work to be done is weighed out to the different operatives, and weighed again when finished, and thus the opportunity and with it the temptation to dishonesty is avoided.

This establishment, which has grown up by degrees to its present great extent, employs above four hundred hands. They are located at present in old buildings, but ill adapted for the accommodation of such a numerous assembly; but roomy and substantial buildings are in course of erection, and in a few months, it may be before these columns go to press, the operatives of Messrs. Goode and Bolland will be as comfortably housed as any artisans in the kingdom. No expense has been spared in the new erections, and ingenious and costly contrivances have been adopted to secure pure air, and plenty of it, in all parts of the edifice.

#### THE PATRIARCH OF MODERN SCIENCE.

It is a common saying that woes and troubles seldom occur singly or at distant intervals. Calamities generally come in clusters. There are few among the sons of men who have not, at some period or other, personally verified the truth and given fresh sanction and currency to this mournful proverb. And what is true in this respect of individuals may be almost equally predicated of whole peoples. National disasters and bereavements will sometimes multiply as swiftly and desolatingly as the chastisements of Job, or as the plagues of Egypt. A people's sorrows, at certain eras in their history, fall thick and heavy as the showers of the tropics. As other ages and times have had their great losses and general griefs, so have we also recently had ours. During the past eighteen months or two years the great reaper has gathered unusually rich spoils from the high places of nations. Seldom has it happened, in so brief a period so many illustrious men have simultaneously passed away from the scenes of their life-long labours, leaving a vacuum which it will not be easy soon to fill. Star after star, belonging to that galaxy of excellence and talent which shed its lustre upon the dawn and meridian of the nineteenth century, has gone out in rapid and startling succession. We have lost Peel and Webster among our senators; Neander, Stuart, Pye Smith, Chalmers, and Bickersteth among our divines and preachers; Wordsworth and Moore among the poets; Soul and Wellington among the warrior sof the age; Macgillivray and Kirby among our naturalists; Stephenson among the world's mechanicians; and Turner among its artists. These are but a few names culled from the melancholy roll of losses recently sustained by science, statesmanship, literature, and religion. The dynasty of genius,

by which the intellectual world has been to a great extent ruled for the last forty years is fast changing. The influential representatives and chief surviving ornaments of the modern Augustan age are rapidly disappearing. A few patriarchs of the race alone remain among us, whose scant silvery hairs and increasing infirmities admonish us that the time of their departure cannot be long postponed. Among these is the venerable Humboldt, who is still labouring at his favourite pursuits, and continues from time to time to bestow his scientific benefactions upon the world.

Humboldt is one of those men who belong to no one land or people. He is the common property of all mankind. Although he has been for more than a quarter of a century the companion of kings and princes, a frequent inmate of palaces, and takes precedence among the *élite* in all departments of knowledge; yet his works, so wealthy in their revelations and so eloquent and fascinating in their style, will give him access to the homes of the inquiring and intelligent everywhere. Few lives have been distinguished by such herculean labours, or have been so rich and fruitful in their results. His discoveries have marked a brilliant era in the annals of science; they have excited the ardour and enlisted the energies of a host of fellow-workers, and have given an impetus to the spirit of investigation, the present and remote influence of which it is impossible to calculate. He has been well called the second discoverer of America, for it was he who first rescued from obscurity and opened to science those domains of the new world of which the mere space had been conquered by Gama and Columbus. He is unquestionably at the present time the greatest living scholar, uniting in himself the varied attainments of an entire academy. All men of distinction respect him alike for his learning, his intellectual greatness, and his manifold virtues.

In a biographical sketch of this renowned naturalist which has recently appeared from the pen of Professor Klencke,\* we are informed that he now lives wherever his patron and friend, the king of Prussia, may happen to be abiding. The philosopher has become a necessary adjunct to the royal household. There are apartments for him in Berlin, Potsdam, and in all the royal palaces, and not a day passes that he does not see the king. We are further told by his biographer, that, in spite of the pressure of more than eighty years upon his brow and frame, he works unweariedly in those hours not occupied by the court. He is active and punctual in his immense correspondence, and answers every letter of the humblest scholar with the most amiable affability. The picture of his personal appearance and bearing as he moves amidst his fellow-citizens, and the description of the veneration and homage which his presence universally inspires, are thus sketched:—"The inhabitants of Berlin and Potsdam all know him personally, and show him as much honour as they show the king. With a slow but firm step, a thoughtful head, rather bent forward, whose features are benevolent with a dignified expression of noble calmness, either looking down or politely

responding to the greetings of the passers-by with kindness and without pride; in a simple dress, frequently holding a pamphlet in his hand, resting on his back;—so he wanders frequently through the streets of Berlin and Potsdam, alone and unostentatiously—a noble picture of a blade of wheat bending beneath the weight of its numerous rich golden ears. Wherever he appears, he is received with tokens of universal esteem: the passers-by timidly step aside for fear of disturbing him in his thoughts; even the working man looks respectfully after him, and says to his neighbour, 'There goes Humboldt.'"

Here, as in a counterpart to our own Newton, we see another remarkable example of the grace of greatness and the modesty of merit. It is from these qualities of the man—and would that we may hope of the Christian—thus tempering the attributes of the scholar, that we can learn to love as well as to admire and revere their possessor. But it is an inquiry of no little interest as to how such pre-eminence of character and position as is now enjoyed by Humboldt was attained; how, stone by stone, he has built up, by unwearied diligence, aided by exalted genius, the fabric of his honourable fame. Eighty years constitute a long period in a single life, and it surely cannot be otherwise than instructive to take a rapid retrospect of the incidents and transactions of *such* a life as that of this patriarch of science. In doing so, the biography before us will aid us materially.

Alexander von Humboldt, who belongs to a wealthy and aristocratic family, first saw the light on the 14th of September, 1769. His father, Major von Humboldt, had been for many years chamberlain to Frederic the Great. When not employed in the duties of this high office, he dwelt at the castle of Tegel, which had originally been a hunting-seat of the great elector. Besides the hero of our sketch, another son, named William, had two years previously been born to him. The boyhood of these two sons, who throughout their entire lives were knit together by the warmest fraternal affection, was passed in this castle, which then, grey and antiquated in its appearance, nearly surrounded by a dark pine grove, and the subject of a mysterious legend, must have made durable impressions on their youthful imaginations. It must not, however, be understood that the inmates were doomed to loneliness and isolation; for, during the life of the old major, the castle had always been famed for its hospitality, where the presence of princes, scholars, statesmen, and public functionaries was at all times encouraged.

The first training of the brothers Humboldt took place under the eye of their parents. The tutor selected was Campe, a man who in later times enjoyed the reputation of being the greatest philologist and critic of German style next to Klopstock. On Campe relinquishing this appointment, the major's next choice fell on Christian Kunth, a youth only twenty years of age, but whose talents and tact excited great expectations, which his subsequent career fully realized. The young tutor found his pupils of the respective ages of eight and ten years, and he succeeded in further developing and directing their mental powers. He threw himself, it appears, heartily into the work of tuition, and established between himself and his

\* Alexander von Humboldt: a Biographical Monument. By Professor Klencke. Translated by Juliette Bauer. Ingram and Co., Strand. 1862.

pupils a far more close and endearing relation than the cold official one usually subsisting between the teacher and the taught.

A difference in the intellectual tendencies and tastes of the boy-students soon revealed itself. Though both rooted in the same foundation, they early discovered a disposition to pursue different branches of acquirement. The illness of their father led to the cultivation of an intimacy, followed by important results, with Dr. Heim, who became medical attendant to the major, and who continued to be a frequent visitor in the family after his death, which event took place in 1779. This eminent physician imparted to the youths a knowledge of botany, and explained to them the twenty-four courses of the Linnean system. It would appear, from an expression used by Heim at this period, that Alexander, then eleven years of age, was of a far less intelligent nature than his brother; the former experienced much more difficulty in comprehending and retaining his lessons than the latter. Much of this inaptitude may perhaps be ascribed to his constitutional delicacy and frequent indisposition, which painfully excited the apprehensions of his mother, and which he did not overgrow for many years. Many of his friends, however, attributed this physical weakness to the premature activity of his mind, stimulated, perhaps unconsciously, by a desire to equal his rival in knowledge and general attainments.

In the year 1783—about three years before the death of Frederic the Great—the brothers, accompanied by their preceptor, were sent to Berlin, in order to avail themselves of the superior advantages and appliances which the capital afforded in the prosecution of their education. Numerous first-rate teachers were now engaged to carry forward their special studies. After spending about three years in Berlin, they together entered upon their academical life at the university of Frankfurt on the Oder. Here William devoted himself to the study of the law, and Alexander to political economy, with a view to their preparation for public life. In 1788, they removed to the celebrated university of Göttingen, where they were brought into mental contact and communion with some of the greatest scholars of the age; for here, besides other men of mark, lived and taught Blumenbach, the famous natural historian; Heyne, the reviver and teacher of archeological science; and Eichhorn, the historian. Their intercourse with these distinguished professors exercised a great influence on the future studies and achievements of Alexander especially.

The university career of the younger Humboldt having terminated towards the close of 1789, just as the French revolution was stirring all Europe to its centre, we find him separating himself for the first time from his brother, and in obedience to the noble impulses of his mind, making his first scientific journey to the Rhine, through Holland, and thence to England. This experimental trip became the subject of his earliest literary production. Magnificent projects of travel and extensive research into the secrets of nature were already being fashioned in his imagination; to equip and furnish himself for which, he devoted himself more closely than ever to study, and undertook occasional tours of inspection with the view of serving a sort of practical apprenticeship to the grand vocation he

had chosen. In the spring of 1791 he became a student in the mining academy of Freiburg, where he devoted his zealous attention to the sciences of mining and metallurgy. In the following year he received an appointment as superintendent of mines in the newly acquired Franconian district, with a commission to remodel the mining operations carried on there. This position he filled till 1795, when he voluntarily resigned it; not, however, before he had published numerous valuable works of a practical character, which spread his reputation as a clever naturalist. All this time, his mind was secretly cherishing and elaborating the plan of a great voyage of discovery, which, after many disappointments, he was destined to see, to a considerable extent, realised.

The next four years witnessed several unsuccessful attempts to fulfil the ambitious wish of his heart. Successive exploring schemes in Italy, Upper Egypt, Asia, and the coast of Africa, were vexatiously frustrated, after the most laborious preparations had been made for them; sometimes by family afflictions, but mainly through the unsettled and perilous state of the lands and seas he would have had to traverse. At the commencement of 1799, however, circumstances being more propitious, our adventurer, accompanied by Bonpland, actually started on that important scientific pilgrimage which detained him five years from Europe, and supplied him with that opulence of materials out of which most of his invaluable works have since been constructed. He proceeded, in the first instance, to Madrid, where, through the intervention of the Saxon ambassador, he was favourably introduced to the Spanish minister Urquijo, by whom in turn Humboldt was presented at court, which gave him the opportunity of explaining to the king his scientific plans. Struck by the representations of their probable practical utility, the descendant of Ferdinand gave his royal permission to the travellers to visit and explore all the Spanish possessions in America, and issued instructions for their protection and assistance. From Madrid they went to Corunna, in quest of a vessel to bear them on their watery way. Here they found a ship, the "Pizarro," prepared to sail to Mexico and Havannah, but which had been for some time detained by the blockade of an English fleet. The travellers, however, went on board, in order to be in readiness to avail themselves of any favourable opportunity of evading the blockading forces. Such a chance before long occurred, in consequence of a violent storm, which compelled the foreign frigates to quit the coast and make for the open sea. During their temporary absence, the "Pizarro" slipped from its moorings, succeeded in eluding the vigilance of the English cruisers, and in the evening, favoured by a fresh breeze, reached the open sea. Great was Humboldt's joy as the European coast gradually faded from his view, and his face was at length set towards the gorgeous realms of that new world, for a sight of which his soul had been yearning for so many years.

To the penetrating eye and well-stored mind of Humboldt, the voyage to which he had just committed himself was full of fascination and instruction. Nature revealed its marvels to him at every step. The sky, the air, the water, exposed their treasures and secrets to his initiated gaze. Much

that he saw was new and surprising. During the night he beheld medusæ emit electric sparks at the moment when the act of catching communicated to them a slight shock. Between Madeira and the African coast he witnessed a perfect rain of shooting stars, which became more vivid the further south the ship proceeded. Sailing on, he passed the Canary Islands, whose shores, and conical rocks, and volcanic elevations, illuminated by the moonlight, pleased him much. A mistake of the captain, who mistook a basaltic rock for a fortress, and sent an officer to it, gave Humboldt an opportunity of landing on the small isle La Graciosa, an incident of interest to him, as being the first non-European soil he had ever trod. The next object of anticipation to the southern voyager was the peak of Teneriffe, which, much to his regret, was veiled in mist. He, however, landed on the island for the purpose of making inland excursions and ascending to the summit of peak Teyde. Here, on the border of the tropics, he for the first time met with the banana, the melon-tree, and other tropical productions flourishing in the open air. He describes the island as an enchanting garden. The ascent of the sugar-loaf rock afforded the philosopher much delight and instruction; passing as he did in succession through different zones of vegetation, from the tropical luxuriance that clothed its base to the mosses and lichens of the northern deserts, and through every variety of climate, from the Indian sultriness of the plain below to the arctic cold of the cavernous crater above. This remarkable mountain furnished Humboldt with valuable materials for his geological investigations into the nature and extent of volcanic agency in the formation of the earth and the phenomena of earthquakes.

While absorbed in these researches, a casual glance at the sea-coast below showed to Humboldt and his companion that their vessel was preparing to sail. Thus alarmed, they descended the rock as speedily as possible, and re-embarking, continued their voyage. As they proceeded, the travellers occupied themselves principally with the sea-winds, which became more equable the nearer they approached the African coast. Next, as they reached the northern regions of the Cape Verd Islands, the great swimming sea-weeds attracted their attention; these productions form banks of marine plants, and are probably rooted in the bottom of the sea, as branches fully 800 feet long have been found. Still sailing on, a melancholy object, a shipwrecked vessel covered with sea-weed, approached, and passed away like a grass-grown floating grave. Not long after this sorrowful incident, a beautiful and inspiring sight was presented to the scientific enthusiast. On a clear midsummer night, he was favoured with a glorious view of the southern cross, the same brilliant constellation which had welcomed the first mariners of the 15th century, as the stars of their native north were vanishing behind them. Deep were his emotions as he gazed upon this sign of a new world. As if to check the flow of his exuberant joy, however, and temper the ardour of his expectations, by showing him that human life at best is made up of alternate sunshine and shadow, a malignant fever broke out, which grew more serious as the ship neared the Antilles. Its first victim

was a young Austrian, the only earthly support of his widowed mother. His death made a deep impression on Humboldt; and it was while under the influence of the mournful feelings inspired by this terrible scourge, that he landed on those shores which had so often smiled a welcome to him in his boyish dreams. In order to abridge the voyage and escape from the infected ship, the captain run into the port of Cumana, on the north-eastern coast of Venezuela. This led also to a change in Humboldt's plans.

Arrived at Cumana, he was received with great civility by the governor of the province. Here, as soon as he had time to stroll about, and observe the amazing productions of nature, he found that he was no longer on the "boundary, but in the centre of the torrid zone." The force and freshness and gigantic proportions of vegetable life everywhere astonished him. Birds, beasts, and reptiles were all strange to him. The trees that towered above his head, the luminous insects that floated in the air and brightened the night, and the glorious constellations blazing in the southern sky, all reminded him of his distance from home. Here, in their native haunts, he was first introduced to the society of immense lizards, monstrous crocodiles disporting in the streams, and melancholy monkeys that seem to be more depressed the nearer they resemble man. Here also he seemed to have stumbled upon the very home of the earthquake, where its terrible voices, its phenomena, and its devastations are almost always to be heard or seen. The extensive experiences of Humboldt on this subject have led him to the conclusion that earthquakes are taking place every minute in some portion of the earth.

To enter into the details of the five years' toilsome excursions that followed would demand a volume instead of a few paragraphs. We can only say in brief, that he explored most of the gigantic rivers of central America, at infinite hazard to his life, often during his inland wanderings in search of natural curiosities falling in with savages and cannibals; he traversed plains, and prairies, and forests of almost interminable extent; explored silver, gold, and diamond mines; and climbed to mountain eminences that had probably seldom, if ever, before been pressed by the foot of man. As an illustration of the courage and enterprise of our traveller, we may mention that he ascended the Chimborazo, one of the loftiest mountains in the world, and towering nearly 6000 feet above the celebrated Mont Blanc. While tarrying in this altitude, the blood flowed from his eyes, his lips, and his gums, breathing became difficult, and the thermometer stood still. One of the first cities visited by him was Caracas, which was utterly destroyed by an earthquake in 1812, at least 12,000 inhabitants perishing beneath the ruins of their overthrown dwellings. It was during his journeys in these magical regions that he discovered the celebrated cow-tree, the previous reports concerning which had been regarded as fabulous. Here, however, in the beautiful valleys of Araguay, it stood, generally too on the sterile declivity of rocks, exuding, on incision, a mild-tasting milk, with an aromatic flavour, and affording healthy nourishment to the native negroes. Here it was also, in the waters near Calabozas, that he made those remarkable observations and experiments upon electric eels, which

were referred to in a former number of our journal. After visiting New Granada, the Brazilian and Mexican coasts, Peru, Cuba, and Havannah, Humboldt and his friend Bopland returned, and reached the harbour of Bordeaux in August, 1804, laden with such immense stores of information, and such collections of specimens and natural treasures as no scientific argosy had ever before brought home from any lands. The fame of their exploits had preceded them, and had created quite a sensation throughout the learned and intellectual circles of Europe.

The next few years of Humboldt's life were spent, partly in Berlin and partly in Paris, in arranging and classifying the multitudinous materials he had gathered in the far south. To accomplish the herculean task of preparing these for publication, he was obliged to secure the co-operation of many of the greatest scholars of the age, in almost every department of scientific attainment. These eminent men, with a freedom from jealousy that does credit to their memory, felt it an honour to be fellow-labourers in this gigantic work, and emulated each other in an endeavour to enhance the sterling value of the respective branches committed to their care. Artists and artisans also, catching the same spirit, strove to make the artistic contributions, the atlas, the landscapes, the topographical arrangements, as perfect and brilliant as possible. The work was written in French, as being the language best adapted to give extensive circulation to its treasures, and was subdivided into a series of pamphlets, each being devoted to a special topic. The comprehensiveness of this colossal undertaking may be judged by the time required for its completion, notwithstanding the valuable aid given to it; for, although the first volume appeared nearly forty years ago, it is only recently completed. In 1844, while yet far from being perfected, the cost of a copy of the folio edition was about 405*l.* The aggregate expenses connected with the publication of the work have amounted to nearly 34,000*l.*, towards which Humboldt has made large pecuniary sacrifices.

In 1822, Humboldt accompanied the king of Prussia on a journey to Italy, on which occasion he fulfilled the long-cherished desire of ascending and studying Vesuvius—an excursion which has proved of peculiar value to the interests of science. In 1827, he paid a visit to London, where he was honourably entertained by Canning; after which period, until he started on his Russian tour, he spent most of his time in Berlin, and under the shadow of royalty. On the 3rd of November, 1827, the renowned naturalist commenced a course of extraordinary lectures on physical cosmography, which attracted all the intellect of the capital and its vicinity. In these eloquent prelections he gave forth, in a popularised form, all the rich fruits of his wonderful researches, thereby charming his audiences and vastly augmenting his fame. This course was the first sketch of the famous "Kosmos," the plan of which had long been forming in his mind, and which is being brought out in his ripe old age as the final result of his life-studies and experiences.

Humboldt had long cherished the idea of a scientific campaign in Asia, and particularly among its mountain districts; but the execution had from

time to time been deferred. While busy with his public lectures, however, the emperor of Russia renewed the magnificent offer which had been previously made to him, of forming an extended expedition in the Russian dominions, at his sole cost, with the express injunction that the advantages resulting from his researches into the mining capabilities of the country were to be subordinated to investigations tending directly to the general advancement of science. Humboldt gladly embraced this proposal, and spent the following year in preparatory studies. On the 12th of April, 1829, he took his departure from Berlin, accompanied by two eminent naturalists, Gustav Rose and Ehrenberg, to each of whom a special branch of activity was assigned. Besides these, an experienced Russian functionary was appointed, as Humboldt's constant companion, whose duty it was to give information, afford guidance, and levy the necessary assistance from the authorities. They proceeded by Moscow and Kasan to the Asiatic side of the Ural chain, whose geological phenomena and metallic wealth afforded abundant occupation for his exploring genius. In these regions he visited malachite pits, magnetic mountains, deposits of topaz and barytes, salt mines, quarries of green jasper, extinct volcanoes, and mines of platinum and gold. Of the two latter precious metals he picked up many nuggets, weighing from twenty to twenty-eight pounds each. After an absence of about eight months he returned to Berlin, having travelled a distance of 2500 geographical miles, bringing home vast materials, calculated to illustrate another gigantic work, instalments only of which have yet been presented to the world.

Exhausted space will only permit us to add a few concluding facts respecting his subsequent history. After the revolution of 1830, he was sent by his sovereign on a diplomatic mission to Paris, to acknowledge the new dynasty in the person of Louis Philippe. Early in 1835 he lost his brother, an event that filled him with deep and enduring grief; and he afterwards undertook the duty of superintending the issue of his literary remains. From that period to the present time his career has been chequered by no striking incident or vicissitude; but he has lived on, working most indefatigably himself, and producing labour in others, who, seizing upon a single suggestion from Humboldt, have developed and pushed it to important results. He continues to be one of the brightest luminaries of the Prussian court, and acts as the confidential companion and scientific adviser of the present monarch; while all men of intellect and knowledge revere him as a patriarch among philosophers, and as the best interpreter of the book of nature whom God has for ages sent into the world. At his advanced age, the period cannot be far distant, however, when he must proceed on a journey of a more momentous character than any which he has yet undertaken—even one to that land "from which no traveller e'er returns." Of his religious opinions the volume before us gives no distinct intimation. It is, we trust, no indecorous wish for us to breathe, that this aged pilgrim of science may be found preparing for that kingdom which even the philosopher cannot enter unless, born again by the Holy Spirit, he receive it as a little child.